

of the markings as I delineated \* them on the several dates referred to; and I wrote to Sig. Schiaparelli, of Milan, enclosing him the particulars of my results, as he has latterly been observing this planet with signal success. In discussing my notes he says:—"You were right in saying that this planet is much easier to observe than *Venus*, and that his aspect resembles *Mars* more than any other of the planets of the solar system. There are spots sometimes partially obscured and sometimes completely so; there are also brilliant white spots in a variable position. You are also right in suspecting that the rotation of Schröter was not exact." Sig. Schiaparelli mentions that his most successful results have been obtained with the planet near superior conjunction, when the defect of the diameter was compensated for by seeing nearly all the disk, which is then more strongly illuminated than near dichotomy.

I wish to call brief attention to these observations, in the hope that observers having equatorially-mounted instruments will examine the planet near superior conjunction. Sig. Schiaparelli has evidently utilised his favourable climate and instrumental means to obtain some important clue to physical phenomena of much interest on this systematically neglected member of our system.

*Bristol: 1883, March 5.*

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*On the Account of William Ball's Observation of Saturn in the Philosophical Transactions.* By Henry T. Vivian.

I have read with great interest the paper by Professor Adams on this subject in the January number of the *Monthly Notices*; but notwithstanding the able manner in which he has dealt with it, it does not appear to me that the difficulties connected therewith, of which he speaks in the early part of his paper, have been altogether removed. There is an explanation, which perhaps has not occurred to Professor Adams, that, I think, may do something towards rendering the matter a little less obscure, and which will make the account in the *Philosophical Transactions* consistent with Ball's observation and his own account of it in his letter.

If we look at the request of the "Person to whom notice was sent" as an attempt to revive, in opposition to Huyghens, the opinion of Hevelius, that *Saturn* was elliptical and enclosed between two circular-shaped bodies, one on each side of him, we shall have this fully supported by the observation of October 13, as may easily be seen by supposing the outline of the planet in fig. 3 to be completed. The account of Ball's observation may then be considered accurate, and the figure correct. This view of the matter appears also to be supported by Ball's first letter of April 14. That letter alludes to observations made in three

\* These drawings are on the eve of publication in the French serial *L'Astronomie*.

several years—viz. in 1664, the autumn of 1665, and in 1666. In 1664, he says, the figure of *Saturn* was the same as in 1666—i.e. like the small fig. at the end of the postscript; and that in 1665 it was “what Sir R. Moray communicated,” which is, no doubt, that alluded to in the account in the *Philosophical Transactions*, and represented in fig. 3.

One other point is perhaps worth inquiry. The Ball referred to by Huyghens is spoken of as D. Ball, whilst the Ball of the *Philosophical Transactions* is William Ball. May they not have been two different persons?

London: 1883, March 3.

[Note on the above Paper, by Professor Adams.—The explanation seems to be that the account of Ball's observation is accurate, and the figure given in the *Philosophical Transactions* correct. But this ignores the fact that all modern observations show that *Saturn's* ring has no such figure as that represented by the paper cutting, and it also supplies no reason for the suppression of the plate containing the extraordinary figure of the ring. The suggestion that the D. Ball spoken of by Huyghens is a different person from the William Ball who made the observations is quite untenable. Huyghens wrote in Latin, and D. Ball is merely an abbreviation for *Dominus* Ball. There were two Balls, William and his brother, but the former was the astronomical observer.]

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*Report of the Work of the Royal Observatory, Cape of Good Hope, during the year 1882.* By David Gill.

During the past year the general programme of last Report has been systematically followed, and some additional researches have been undertaken.

1. The observations for the telegraphic connection of the longitudes of Aden and this Observatory, including the necessary personal-equation determinations, were completed on February 22, 1882, and the places of all the stars employed in the work have been re-observed with the Transit Circle.

The reductions of all these Transit Circle observations and of the personal-equation determinations are completed, as also are the determinations of clock error at all the stations except Aden. The latter were delayed in expectation of recent places of a few Northern circumpolar stars. The whole of the reductions of this work will now be completed within a few weeks.

2. The places of the Moon from Hansen's Tables, corresponding to the instants of occultations observed at the Cape previous to 1860, have been communicated by Professor Newcomb. The resulting equations have been computed, and the complete work only now requires the application of small corrections for error in the assumed longitude of the Cape.

3. The Cape Catalogue for 1850 has been delayed in comple-